SEQUENCE LISTING

	•	
	(1) GENERA	information:
	(i)	APPLICANT:
		(A) NAME: TRANSGENE SA
5		(B) STREET: 11 rue de Molsheim
		(C) CITY: Strasbourg
		(E) COUNTRY: France
		(F) POSTAL CODE: 67082
		(G) TELEPHONE: (33) 88 27 91 00
10		(H) TELEFAX: (33) 88 27 91 11
		TITLE OF INVENTION: Pharmaceutical composition for
	treating p	apillomavirus tumors and infection
	(iii)	NUMBER OF SEQUENCES: 16
4-	(iv)	COMPUTER READABLE FORM:
15		(A) MEDIUM TYPE Tape
		(B) COMPUTER: IBM PC compatible
		(C) OPERATING SYSTEM: PC-DOS/MS-DOS
		(D) SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
		(EFO)
20	(2) INFORM	ATION FOR SEQ ID NO: 1:
	(= / = = = = = = = = = = = = = = = = = =	
	(i)	SEQUENCE CHARACTERISTICS:
		(A) LENGTH: 36 base pairs
		(B) TYPE: nucleic acid
		(C) STRANDEDNESS: single
25		(D) TOPOLOGY: linear
	(ii)	MOLECULE TYPE: DNA (genomic)
	(iii)	HYPOTHETICAL: NO
	(iii)	ANTI-SENSE: NO
		\
	(vi)	ORIGINAL SOURCE: \

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(vi) ORIGINAL SOURCE:

(A) ORGANISM: Human papillomavirus

(B) STRAIN: HPV-16

		(C) INDIVIDUAL ISOLATE: synthetic oligonucleoti	đe
		OTG5118 (E7 deleted 21 to 26)	
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 1:	
	TCTGAGCTGT	CATTTAATTG AGTTGTCTCT GGTTGC	36
5	(2) INFORM	ATION FOR SEQ ID NO: 2:	
	(i)	SEQUENCE CHARACTERISTICS:	
		(A) LENGTH: 32 base pairs	
		(B) TYPE: nucleic acid	
		(C) STRANDEDNESS: single	
10		(D) TOPOLOGY linear	
	(ii)	MOLECULE TYPE: \DNA (genomic)	
1.	(iii)	HYPOTHETICAL: NO	
1	\ ,		
12/X	(iii)	ANTI-SENSE: NO	
المي ^{رو}	(,	\	
	(vi)	ORIGINAL SOURCE:	
15	, ,	(A) ORGANISM: Human papillomavirus	
		(B) STRAIN: HPV-16	
		(C) INDIVIDUAL ISOLATE: synthetic oligonucleotic	đe
		oTG5377 (E6 deleted 111 to 115)	
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 2:	
20	TGTCCAGATG	TCTTTGCAGT GGCTTTTGAC AG	32
	(2) INFORM	ATION FOR SEQ ID NO: 3:	
	(i)	SEQUENCE CHARACTERISTICS:	
		(A) LENGTH: 35 base pairs	
		(B) TYPE: nucleic acid	
25		(C) STRANDEDNESS: single	
		(D) TOPOLOGY: linear	
	(ii)	MOLECULE TYPE: cDNA	
	(iii)	HYPOTHETICAL: NO	

	(iii) ANTI-SENSE: NO
	(vi) ORIGINAL SOURCE:
	(A) ORGANISM: Homo sapiens
	(¢) INDIVIDUAL ISOLATE: synthetic oligonucleotide
5	oTG6353 (PCR gene B7.1)
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
	TCAGCCCCTG AATTCTGCGG ACACTGTTAT ACAGG 3:
	(2) INFORMATION FOR SEQ ID NO: 4:
	(i) SEQUENCE CHARACTERISTICS:
10	(A) LENGTH: 33 base pairs
	(B) TYPE: pucleic acid
	(C) STRANDEDNESS: single
	(D) TOPOLOGY linear
	(ii) MOLECULE TYPE: CDNA
15 V	(iii) HYPOTHETICAL: NO
y de	(iii) ANTI-SENSE: YES
	(vi) ORIGINAL SOURCE:
	(A) ORGANISM: Homo sapiens
	(C) INDIVIDUAL ISOLATE; synthetic oligonucleotide
20	oTG6352 (PCR gene BV.1)
	(*i) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
	TTGACCCTAA AGATCTGAAG CCATGGGCCA CAC 3:
	(2) INFORMATION FOR SEQ ID NO: 5:
	(i) SEQUENCE CHARACTERISTICS:
25	(A) LENGTH: 32 base pairs
	(B) TYPE: nucleic acid
	(C) STRANDEDNESS: single
	(D) TOPOLOGY: linear
	(ii) MOLECULE TYPE: DNA (genomic)

	\ (iii)	HYPOTHETICAL: NO
	\(iii)	ANTI-SENSE: NO
	(vi)	ORIGINAL SOURCE:
		(A) ORGANISM: Vaccinia virus
5	\	(B) STRAIN: Modified Ankara
	\	(C) INDIVIDUAL ISOLATE: synthetic oligonucleotide
	\	oTG7637 (PCR zone III)
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 5:
	GGGGGGAAT	TCAGTAAACT TGACTAAATC TT 32
10	(2) INFORM	ATION FOR SEQ ID NO: 6:
	(i)	SEQUENCE CHARACTERISTICS:
		(A) LENGTH: 39 base pairs
		(B) TYPE: bucleic acid
		(C) STRANDEDNESS: single
15		(D) TOPOLOGY: linear
10	(ii)	MOLECULE TYPE: DNA (genomic)
7	(iii)	HYPOTHETICAL: NO
\mathcal{Y}_{ζ}	W,, (iii)	ANTI-SENSE: YES
	(vi)	ORIGINAL SOURCE:
20		(A) ORGANISM: Vaccinia virus
		(B) STRAIN: Modified Ankara
		(C) INDIVIDUAL ISOLATE: synthetic oligonucleotide
		oTG7638 (PCR zone III)
	(xi)	SEQUENCE DESCRIPTION: SEQ ID No: 6:
25	GGGGGGGAT	CCGAGCTCAC CAGCCACCGA AAGAGCAAT \
	(2) INFORM	ATION FOR SEQ ID NO: 7:
	(i)	SEQUENCE CHARACTERISTICS:
		(A) LENGTH: 32 base pairs
		(B) TYPE: nucleic acid

		(C) STRANDEDNESS: Single	
		(p) TOPOLOGY: linear	
	(ii)	MOLECULE TYPE: DNA (genomic)	
	(iii)	HYPOTHETICAL: NO	
5	(iii)	ANTI-SENSE: NO	
	(vi)	ORIGINAL SOURCE:	
	(- 7	(A) ORGANISM: Vaccinia virus	
		(B) STRAIN: Modified Ankara	
		(C) INDIVIDUAL ISOLATE: synthetic oligonucleo	atide
10		oTG7635 (PCR zone III)	ocide
		010/013 (2CR 20He 111)	
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 7:	
1.			
w .	GGGGGGGAT	CCGGAAAGTT TTATAGGTAG TT	32
7, 1	17		
17	(2) INFORM	MATION FOR SEQ ID NO: 8:	
4	P '		
	(i)	SEQUENCE CHARACTERISTICS:	
15		(A) LENGTH: 30 base pairs	
		(B) TYPE: nucleic acid	
		(C) STRANDEDNESS: single	
		(D) TOPOLOGY: linear \	
	(ii)	MOLECULE TYPE: DNA (genomic)	
20	(iii)	HYPOTHETICAL: NO	
	(iii)	ANTI-SENSE: YES	
	(vi)	ORIGINAL SOURCE:	
		(A) ORGANISM: Vaccinia virus	
		(B) STRAIN: Modified Ankara	
25		(C) INDIVIDUAL ISOLATE: synthetic oligonucleo	otide
		oTG7636 (PCR zone III)	
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 8:	

(2)	INFORM	MATION FOR SEQ ID NO: 9:	
	(i)	SEQUENCE CHARACTERISTICS:	
	\	(A) LENGTH: 78 base pairs	
	,	(B) TYPE: nucleic acid	
5		(C) STRANDEDNESS: single	
		(D) TOPOLOGY: linear	
	(ii)	MOLECULE TYPE: DNA (genomic)	
	(iii)	HYPOTHETICAL: NO	
	(iii)	ANTI-SENSE: NO	
10	(vi)	ORIGINAL SOURCE:	
	• -,	(C) INDIVIDUAL ISOLATE: synthetic oligonucle	eotide
1		oTG10451	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
$\mathcal{P}_{i} \mathcal{V}_{i}$			
D'uni	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 9:	
CTT	ATACAGG G	SCGTACACTT TCCCTTCTCA ATCTCTCTCG AGTTGTATTT ATTTTCATT	T 60
15 TTT	AAGTATA G	\	
15 TIN	MGIAIA G	MATAAAA	78
(2)	TNFORM	MATION FOR SEQ ID NO: 10:	
(-/	1111 0141	100 100 550 15/10.	
	(1)	SEQUENCE CHARACTERISTICS:	
	(-/	(A) LENGTH: 86 base pairs	
		(B) TYPE: nucleic acid	
20		(C) STRANDEDNESS: single	
		(D) TOPOLOGY: linear	
		(2) Torobogi. Timedi	
	(44)	MOLECULE TYPE: DNA (genomic)	
	(11)	MODECODE TIPE: DAY (genomic)	
	(444)	HYPOTHETICAL: NO	
	(111)	HIPOTRETICAL: NO	
	/222\	NAME GENOR - 1770	
	(111)	ANTI-SENSE: YES	
25	(# \	\ \	
25	(41)	ORIGINAL SOURCE:	
		(C) INDIVIDUAL ISOLATE: synthetic oligonucle	otide
		oTG10450	
	• s		
•	(X1)	SEQUENCE DESCRIPTION: SEQ ID NO: \10:	

AGCTTTTTAT TCTATACTTA AAAAATGAAA ATAAATACAA CTCGAGAGAG ATTGAGAAGG

(A) ORGANISM: Vaccinia virus (B) STRAIN: Modified Ankara

		(C) INDIVIDUAL ISOLATE: synthetic oligonucleoti	đe
		oTG7584 (PCR zone II)	
5	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 12:	
	GGCTGCAGGA	TCCGAGCTCA TCATGACGTC CTCTGCAATG G	41
	(2) INFORM	TATION FOR SEQ ID NO: 13:	
	(i)	SEQUENCE CHARACTERISTICS:	
		(A) LENGTH: 32 base pairs	
10		(B) TYRE: nucleic acid	
		(C) STRANDEDNESS: single	
		(D) TOPOLOGY: linear	
1.			
<i>p</i>	\ (ii)	MOLECULE TYPE: DNA (genomic)	
\mathcal{V}_{I}	λ		
$\mathcal{Y}_{\mathcal{I}}$) ⁽⁽⁾ (iii)	HYPOTHETICAL: NO	
15	(iii)	ANTI-SENSE: NO	
	(vi)	ORIGINAL SOURCE	
		(A) ORGANISM: Vaccinia virus	
		(B) STRAIN: Modified Ankara	
		(C) INDIVIDUAL ISOLATE: synthetic oligonucleoti	de
20		oTG7639 (PCR zone II)	
	(xi)	SEQUENCE DESCRIPTION:\SEQ ID NO: 13:	
	GGGGGGGAT	CCTGTGAATC ATCCATTCCA CT	32
	(2) INFORM	ATION FOR SEQ ID NO: 14:	
	(i)	SEQUENCE CHARACTERISTICS:	
25		(A) LENGTH: 33 base pairs	
		(B) TYPE: nucleic acid	
		(C) STRANDEDNESS: single	
		(D) TOPOLOGY: linear	
	(ii)	MOLECULE TYPE: DNA (genomic)	
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	(iii)	HYPOTHETICAL: NO	
	(iii)	ANTI-SENSE: YES	
	(vi)	ORIGINAL SOURCE:	
_		(A) ORGANISM: Vaccinia virus	
5		(B) STRAIN: Modified Ankara	
		(C) INDIVIDUAL ISOLATE: synthetic oligonucleotic oTG7640 (PCR zone II)	ıe
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 14:	
	GGGGGGAAT	TCGTTACTAA ATTGCAAGGA AAT	33
10	(2) INFORM	ATION FOR SEQ ID NO: 15:	
	(2, 200 000		
0	(i)	SEQUENCE CHARACTERISTICS:	
١ ١٣	1.	(A) LENGTH: 69 base pairs	
D'	or'X	(B) TYPE: nucleic acid	
9 0		(C) STRANDEDNESS; single	
15		(D) TOPOLOGY: linear	
	(ii)	MOLECULE TYPE: DNA (genomic)	
	(iii)	HYPOTHETICAL: NO	
			
	(111)	ANTI-SENSE: NO	
	(4)	ODICINI, COURCE	
20	(41)	ORIGINAL SOURCE: \ (C) INDIVIDUAL ISOLATE: synthetic oligonucleotic	3 ~
20		oTG10503	16
		\	
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 15:	
	CTCAAGTCAG T	GTTGAGATG ATGCTTTGAC AACTCGAGTT TATTTCATT TTTTAAGTAT	60
	AGAATAAAA		69
25	(2) INFORM	ATION FOR SEQ ID NO: 16:	
	(i)	SEQUENCE CHARACTERISTICS:	
		(A) LENGTH: 77 base pairs	
		(B) TYPE: nucleic acid	

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 l
'



(C),	STRANDEDNESS:	single

(D) \TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: NO

5

(iii) ANTI-SENSE: YES

Jug 1974

(vi) ORIGINAL SOURCE:

(C) INDIVIDUAL ISOLATE: synthetic oligonucleotide oTG10502

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

10 AGCTTTTAT TCTATACTTA AAAAATGAAA ATAAACTCGA GTTGTCAAAG CATCATCTCA 60

ACACTGACTT GAGGTAC

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